

CLAIMS

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1. A filter cartridge comprising a strip, long fiber non-woven fabric which comprises a thermoplastic fiber and in which at least a part of fiber intersections is adhered, wherein the strip, long fiber non-woven fabric is wound around a perforated cylinder in a twill form.

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2. The filter cartridge as described in claim 1, wherein the thermoplastic fiber constituting the long fiber non-woven fabric is a thermally adhesive composite fiber comprising a low melting point resin and a high melting point resin, the difference in a melting point of both the resins being 10°C or more.

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3. The filter cartridge as described in claim 2, wherein the low melting point resin is linear low density polyethylene and the high melting point resin is polypropylene.

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4. The filter cartridge as described in ^{claim 1} ~~any of claims 1 to 3~~, wherein the long fiber non-woven fabric is bonded by thermal compression by means of a heat embossing roll.

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5. The filter cartridge as described in ^{claim 2} ~~claim 2 or 3~~, wherein the fiber intersections of the long fiber non-woven fabric are bonded by hot blast.

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6. The filter cartridge as described in ^{claim 1} ~~any of claims 1 to 3~~, wherein the strip, long fiber non-woven fabric is twisted.

7. The filter cartridge as described in ^{claim 1} ~~any of claims~~
~~1 to 3~~, wherein the strip, long fiber non-woven fabric is
formed into a pleated matter having 4 to 50 pleats and wound
around a perforated cylinder in a twill form.

8. The filter cartridge as described in claim 7,
wherein at least a part of the pleats of the above pleated
matter is non-parallel.

9. The filter cartridge as described in claim 7,
wherein the pleated matter has a void rate of 60 to 95%.

10. The filter cartridge as described in any of claims
1 to 3, wherein the filter cartridge has a void rate of 65
to 85%.

11. The filter cartridge as described in ^{claim 1} ~~any of claims~~
~~1 to 3~~, wherein the long fiber non-woven fabric has a slit
width of 0.5 cm or more, and a product of the slit width
(cm) and the basis weight (g/m²) is 200 or less.